

ABSTRACT OF THE DISCLOSURE

An insulating film having dielectric constant not greater than 2.7 is provided above a semiconductor substrate. A via comprises a conductive material, which is provided in a via hole formed in the insulating film. A first interconnection comprises a conductive material, which is provided in an interconnection trench formed on the via in the insulating film. A first high-density region is formed in the insulating film, and has a cylindrical shape surrounding the via, an inner surface common to the boundary of the via hole, and a film density higher than the insulating film.